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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/874,315	06/06/2001	Hisashi Nobukawa	026350-054	6102

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EXAMINER

BHAT, NINA NMN

ART UNIT PAPER NUMBER

1764

DATE MAILED: 10/01/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/874,315

Applicant(s)

NOBUKAWA, HISASHI

Examiner

N. Bhat

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 06 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are: the condenser, heating or cooling means to effect condensing.
2. Claims 1-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear from reading the claims and the specification whether applicant is trying to remove impurities from rainwater or from seawater. Is applicant claiming a solar still? It is further unclear what exactly applicant is doing in order to separate the specific ingredients, is applicant using solar energy, to concentrate seawater, is the seawater pumped from the sea into the upper and lower tanks. Further in claim 1, it is unclear how and why the weather is affecting the apparatus. In drafting apparatus claims, it is usually immaterial what the weather conditions are and further, applicant is advised that claim 1 as presently drafted reads on an upper tank, a lower tank and circulating means all the rest of the claim is functional language which does not impart in any way that the a specific ingredient is being condensed. Perhaps the specification and the claims are literal translations from Japanese to English, applicant's claims are indefinite, the claims omit essential elements and applicant's specification and claims are very difficult to understand. Suitable explanation and correction is required.

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3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Sakurai.

Sakurai teach an air-conditioning system which includes an evaporator which is disposed upstream of a heater unit and downstream for a blower unit. The evaporator includes upper and lower tanks (116a and 116b) and a plurality of tubes, which are arranged there between and include piping which circulates the fluid from the upper and lower tanks thus anticipating applicant's claims.

5. Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Saal et al.

Saal et al. teach an apparatus for separating water containing solvent mixtures having two or more phase using one or two gravitation separators (4 and 16) which are functionally equivalent to applicant's upper and lower tank, which includes circulating means from the upper tank to the lower tank. Specifically in claim 14, Saal recites that the gravitation separator is in a configuration of an upper tank disposed on top of a lower tank wherein a top of the lower tank is connected to a bottom of the upper tank,

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thus anticipating applicant's claims as presently drafted giving the claims its broadest most reasonable interpretation.

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sear.

Sear teaches the invention substantially as claimed. Sear teaches a an apparatus for the purification of water, especially the desalination of the existing water supply from the ocean and also to reclaim some of the impurities found in sea water. The apparatus includes a tank having a valve in the enclosing retaining wall of the tank to permit the containment of sea water, a cover is disposed over the top of the tank in the form of a inflatable plastic material which will remain in the form of an encasing dome which permits the build-up of natural heating forces form sunlight which vaporizes the sea water contained within the tank. A blower is operatively connected to the tank assembly to move the vapor

into pipe line (14), which extends into relative depth below the surface the surface of the sea; as the vapor passes down the pipe it condenses into droplets of water. The apparatus uses the changes in temperatures, which exist between the temperature at the surface of the sea and that which exists at greater depths for condensing the water to provide potable water. Sears further teaches that a fountain can be used in order to aerate the water. [Note Column 1, 53-60] Further included is providing an underground fresh water tank which is shown in Figures 3 and 4. Sear further teaches that the water purification system is maintained in floating position on support 53 although it may be otherwise secured.[Note Column 2 lines 38 through Column 4, lines 65]

It would have been obvious from reading Sear to provide an ingredient dissolved liquid condensing apparatus which includes a upper tank, and lower tank, on tank which stores sea water and a second tank which includes a fresh water which stores the water which condenses from tank 50 containing the seawater. To provide aerating means such as a fountain has been specifically taught in Sear as well providing means to maintain the water purification system in floating position on a support or mooring has been specifically taught and to include a crane if necessary or any other type of off shore rigging equipment

would have been obvious to one having ordinary skill in the art especially in the design of desalination and purification equipment used in desalinating sea or ocean water.


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9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Larriva teach a refrigeration booster which includes upper and lower tanks including a circulating means between the upper and lower tanks.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to N. Bhat whose telephone number is 571-272-1397. The examiner can normally be reached on Monday-Friday, 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 571-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


N. Bhat
Primary Examiner
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